Reviewer’s report

Title: Patient characteristics associated with treatment initiation among paediatric patients with Attention-Deficit/Hyperactivity Disorder symptoms in a naturalistic setting in Central Europe and East Asia

Version: Date: 24 June 2014

Reviewer: Fiona Mensah

Reviewer’s report:

Thank you for the opportunity to review this important and interesting and well written manuscript. My review particularly focuses on the conduct and presentation of the statistical analyses. I have detailed some comments below that may help in amending and clarifying areas of concern.

With thanks and best regards
Fiona Mensah

• Major Compulsory Revisions

1. Study Design and Patient Sample: Please clarify the proximity of the baseline assessment to the diagnosis and prescription of initial treatment, I wasn’t able to be sure whether there was any gap between these. This has important implications, for example not being involved in bullying and being asked to take part in social activities (over the last 4 weeks) could be a consequence of effective treatment being put into place immediately before the baseline assessment was made.

2. Statistical Analysis: The mean patient age and clinical severity by type of treatment or no treatment were initially examined and then the authors quote that these were compared using the Kruskal-Wallis test. This seemed inconsistent as this test would be applicable for a non-parametric comparison rather than comparison of means, please clarify this decision and if necessary present medians and inter-quartile range in accord with the Kruskal-Wallis test. It is likely that the t-test would be robust for a sample of this size even if the data have some skewness so could be used as an alternative. Please see for further guidance: Lumley T, Diehr P, Emerson S, Chen L. The Importance Of The Normality Assumption In Large Public Health Data Sets. Annual Review of Public Health. 2002/05/01 2002;23(1):151-169.

It should also be indicated on Table 1 how the p value is derived.

3. The analyses were repeated for each of the regions without a formal test of whether there were differential effects according to region (i.e. a test of interaction between region and the explanatory variable of interest). This can lead to differences being asserted between regions that are chance variability rather than really being differential effects. Please address this and comment on
the capacity of the sample to reliably identify whether the effects of the explanatory variables differ according to region.

4. Patient characteristics: Figure 1 presents the types of treatments prescribed at baseline using a series of pie charts. It is difficult to compare the fractions of the charts by eye using this format and would be recommendable to consider using a bar chart as an alternative.

5. In Table 3 it is important to present all of the effects rather than presenting only the significant effects. Please see for further guidance: Sterne JA, Smith GD, Cox D. Sifting the evidence—what's wrong with significance tests? Another comment on the role of statistical methods. Bmj. 2001;322(7280):226-231.

6. Discussion: page 14, paragraph 2. Please also give 95% confidence intervals for results that don’t meet statistical significance. (Colegrave N, Ruxton GD. Confidence intervals are a more useful complement to nonsignificant tests than are power calculations. Behavioral Ecology. 2003;14(3):446-447.)

7. Page 15, paragraph 2. In this discussion please consider the timing of the baseline assessment relative to the diagnosis as in point 1.

• Minor Essential Revisions

8. Page 15, paragraph 1. I would recommend strengthening the final sentence so this reads ‘Further research, necessarily culturally sensitive, is required ...’

9. Please amend Table 2 so that % is in the row headings rather than in the body of the table.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests